



UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/445,990 12/16/99 LANGHANS

L LANGHANS

020151
HENRY M FEIEREISEN
350 FIFTH AVENUE
SUITE 3220
NEW YORK NY 10118

MM91/0622

EXAMINER

MENEFEE, J

ART UNIT

PAPER NUMBER

2881

DATE MAILED:

06/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/445,990

Applicant(s)

LANGHANS ET AL.

Examiner

James Menefee

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 30 April 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Response to Amendment

In response to Amendment B, filed 30 April 2001, claims 1-8 and 10-11 have been amended and claim 9 cancelled. Claims 1-8 and 10-11 are pending.

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 30 April 2001 have been approved.

The Patent and Trademark Office no longer makes drawing changes. See 1017 O.G. 4. It is applicant's responsibility to ensure that the drawings are corrected. Corrections must be made in accordance with the instructions below.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. **Correction of Informalities -- 37 CFR 1.85; 1097 O.G. 36**

New formal drawings must be filed with the changes incorporated therein. The art unit number, application number (including series code) and number of drawing sheets should be written on the reverse side of the drawings. Applicant may delay filing of the new drawings until receipt of the "Notice of Allowability" (PTOL-37 or PTO-37). If delayed, the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the "Notice of Allowability" to avoid extension of time fees. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a) for filing the corrected drawings (but not for payment of the issue fee). The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

2. **Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be

allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the three month shortened statutory period set in the "Notice of Allowability" (PTO-37). Within that three month period, two weeks should be allowed for review of the new drawings by the Office. If a correction is determined to be unacceptable by the Office, applicant must arrange to have an acceptable correction re-submitted within the original three month period to avoid the necessity of obtaining an extension of time with extension fees. Therefore, applicant should file corrected drawings as soon as possible.

Failure to take corrective action within the set (or extended) period will result in **ABANDONMENT** of the application.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the cited prior art Safyurtlu (CA 1 164 990 A) in view of Marshall. Safyurtlu discloses a laser system that includes a laser rod, a convex rear mirror, and a semi-reflecting output mirror in close proximity to the rod. There is no mention that either of the ends of the rod should be convex or that the ends of the rod may be made reflective so that they make up the mirrors of the resonator. Marshall discloses a laser rod where the input end is convex and the end is made reflective to make up a mirror of the resonator (col. 7 line 61 – col. 8 line 17). This is done to produce a beam of maximum diameter. It would be obvious to one skilled in the art that either end of the laser rod may be rounded off (made convex) to gain control of the shape of the beam, as taught by Marshall. It would

be an obvious rearrangement of parts to make the opposite end the reflective one in lieu of the output mirror, as in claims 2-4.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Safyurtlu and Marshall as applied to claims 1-5 above, and further in view of Kataoka. Safyurtlu and Marshall disclose all of the limitations of claims 1-5 above, but do not mention the variety of laser rods that may be used. Kataoka teaches the use of any of the claimed lasers (col. 9 lines 42-53). It would be obvious to one skilled in the art to use any of those lasers because of their favorable wavelengths, as taught by Kataoka.

Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Safyurtlu and Marshall as applied to claims 1-5 above, and further in view of Richmond. Safyurtlu and Marshall disclose all of the limitations of claims 1-5 but make no mention that the output mirror should be close to the laser rod, specifically within approximately 10 mm. Richmond discloses that the spacing between the output mirror and the rod can be changed (col. 4 lines 52-55). It would be obvious to one skilled in the art to change the spacing in order to control the divergence of the beam, as taught by Richmond. It is an obvious optimization to change the spacing specifically as the applicant claims.

Response to Arguments


Applicant's arguments with respect to claims 1-8 and 10-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Menefee whose telephone number is (703) 605-4367. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Arroyo can be reached on (703) 308-4782. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JM
June 18, 2001


TERESA M. ARROYO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800